

REMARKS

By this response, claims 1, 2, 4-11, 26 and 27 are re-presented for examination. Claim 28 is new. To the extent the cited prior art remains relevant, these remarks address the merits of the Office Action dated November 27, 2006. Presently, all claims stand rejected as anticipated by Watanabe (U.S. Patent No. 6,247,804) or as obvious in view of Watanabe or the combination of Watanabe and Ujita et al. (U.S. Publication No. 2002/0158949). Watanabe is the primary patent upon which all rejections stand. Ujita is cited for the proposition of teaching a label fabricated as a two layer laminate, which may be a layer of polyester over a layer of polypropylene. In view of the foregoing amendments and arguments that follow, the Applicant requests reconsideration and allowance of the claims.

It is first noted that claim 9 is amended to recite a numerical value of 168, whereas the claim as filed inadvertently recited a numerical value of 210. The originally-filed Specification recited a numerical value of 168 (see *page 11, line 1*), and the proper value based on the recited calculation is indeed 168 (*page 10 at bottom, bridging to page 11 at top*). Accordingly, the amendment cannot be said to represent new matter, and entry thereof is respectfully requested.

Turning now to the substantive portions of the Action, claims 1-2, 4-8, and 26-27 are rejected as anticipated under 35 U.S.C. §102(b) by U.S. Patent No. 6,247,804 to Watanabe. It is a well-settled proposition that to support a rejection of claims as anticipated by a prior art teaching, all of the elements of the claim must be set forth in the prior art, expressly or inherently.¹ Respectfully, Watanabe does not and cannot set forth each claimed limitation

¹ *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987) (“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.”); *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989) (“The identical invention must be shown in as complete a detail as is contained in the ... claim).

of the independent claims as amended or of new claim 28, and therefore the Section 102 rejection fails the “all-elements” test of *Verdegaal* and *Richardson*.

By the present paper, independent claims 1, 4, 5, 7, 26, and 27 are amended, and new claim 28 is set forth, to more explicitly recite an inkjet printhead comprising air diffusion vents and including the feature of a single label which, by multiple pre-determined placement positions, is positioned over a portion but not an entirety of at least one air diffusion vent during printing while covering at least one additional air diffusion vent and associated ink fill hole entirely. For example, Figure 1 clearly shows an embodiment of the present invention providing an inkjet printhead having three ink fill holes 18 and three air diffusion vents 16-1, 16-2, 16-3. In this embodiment, three ink fill holes 18 and two air diffusion vents 16-1 and 16-2 are entirely covered by a single label 22, whereas a portion but not an entirety of a third air diffusion vent 16-3 is covered by the same label 22. In this manner, one of the vents 16-3 is completely operational during printing while the vents 16-1, 16-2 are inoperable (*page 8, ll 5-12 and page 8, ll 17-25*: “...the label in this position covers or resides over an entire length or entirety of the air diffusion vents 16-1, 16-2 but only covers a portion ... of the air diffusion vent 16-3 ... a manufacturer would place the label in this position if it needed a single air diffusion vent to fluidly communicate with atmosphere such as when an inkjet printhead contains ... a single or mono-colored ink”).

Further structurally distinguishing the present invention from the cited prior art, the multiple placement positions of the present invention are multiple predetermined design points, not merely slop-induced tolerance positions as in prior art printheads, enabling selective placement of a single label on the printhead to cover an entirety of some of the air diffusion vents/ink fill holes and a portion but not an entirety of at least one other of the air diffusion vents to vent to atmosphere during printing (*page 9, ll 17-21*).

As clearly set forth in the present Specification (*page 9, ll 6-12*), this enables an inkjet printhead having a common housing, regardless of content (i.e., single or multiple inks), with relatively simple manufacturing processes. That is, if a single-ink printhead were desired, the manufacturer could fill one ink compartment, two compartments for a two-ink printhead, and so on. The number of air diffusion vents partially uncovered by label 22 during printing as recited above would depend on whether one or multiple printhead ink compartments were filled for one or multiple ink color printing. In turn, enabling manufacture and use of such a common housing allows manufacturers to save on costs, in that the same basic housing is used regardless of whether a single-ink or a multiple-ink printhead is being manufactured.

Watanabe, on the other hand, teaches a reaction solution tank 7a for an ink jet recording apparatus, tank 7a having a lid 8 provided with communicating holes 9 (*Figure 3; Col. 3, ll 8-10*) and an air hole 9a (*Figure 3; Col. 3, ll 26-32*). Further, Watanabe requires two labels (sealing members 21 and 22, see *Figures 2 and 3; Col. 3, ll 56-58; Col. 4, ll 2-6*) for sealing 9, 9a. Specifically, Watanabe expressly teaches sealing communicating hole 9 with sealing member 22 during filling of tank 7a and sealing air hole 9a with a second, separate sealing member 21 (*Col. 4, ll 2-6*) after filling reaction solution tank 7a (*Col. 3, ll 26-28; Col. 4, ll 2-6*). Watanabe requires two sealing members 21, 22 so that after filling reaction tank 7a with a reaction solution, both communicating hole 9 and air hole 9a are completely sealed (*Col. 3, ll 26-28; Col. 4, ll 2-6*). This allows storage under reduced pressure of the reaction solution contained in tank 7a, thereby preventing precipitation from the reaction solution and clogging of the described ink jet recording apparatus (see *Col. 3, ll 38-49*).

For use, Watanabe's sealing member 21 is completely removed to allow communication of the interior of reaction solution tank 7a with the exterior of tank 7a via air hole 9a (*Col. 3, ll 26-32*), in other words to allow fluid venting to atmosphere. Specifically,

for use (printing), Watanabe specifically teaches removal of sealing member 21 to completely, not partially, expose air hole 9a, "...to replenish the reaction solution tank 7a with air by a volume equal to the volume of the consumed reaction solution" (*Col. 3, ll 36-38*), i.e., to vent to atmosphere. No provision is made for any alternative configuration or treatment of sealing members 21, 22 allowing partial covering of one or the other of features 9/9a without complete removal of one of sealing members 21, 22 to provide such air flow during use, much less for use of a single label for that purpose. In other words, in making the transition from a storage state (sealing members 21, 22 covering 9, 9a) to a use or printing state (sealing member 21 removed), Watanabe requires two separate labels for 9, 9a, and provides no teaching or even any hint of an alternative structure or process to accomplish that transition. To the contrary, Watanabe's features 9 and 9a are either covered in their entirety during filling, storage, or use, or they are uncovered in their entirety during filling, storage, or use (see Watanabe *Figures 2, 3*, see also *Col. 3, ll 26-32*).

The Examiner takes the position (for example, see page 4 of the Action at bottom) that Watanabe's communicating hole 9 and air hole 9a can interchangeably be an ink fill hole, an air diffusion vent, or both. Even if this interpretation is accepted, Watanabe hardly anticipates the independent claims of the present application. This is because Watanabe simply does not provide any teaching or suggestion of an inkjet printhead comprising air diffusion vents and having a single label which covers a portion but not an entirety of at least one air diffusion vent during printing to allow venting to atmosphere. Rather, as discussed above, Watanabe expressly requires two labels to provide this feature. Lacking this feature, Watanabe cannot be said to anticipate the independent claims of the present invention, and the rejection should be withdrawn. The dependent claims of the present application, incorporating by reference the limitations of the independent claims, are also believed to be in condition for allowance.

As to any prospective consideration of obviousness of the independent claims grounded on the teachings of Watanabe, no suggestion or motivation for any alternative structure, position, process, or treatment for the sealing member elements 21, 22 of Watanabe can be found therein without recourse to the teachings of the present Specification. As noted above, Watanabe simply does not contemplate other than use of two sealing members 21, 22 for the purposes summarized above, nor is any suggestion or motivation for providing less than two sealing members found.

Indeed, less than two sealing members would obviate a major feature of Watanabe, i.e., allowing storage of the contents of Watanabe's tank 7a at reduced atmospheric pressure to prevent precipitation (Watanabe *Col. 3, ll 38-49*), and then venting to atmosphere during use (*Col. 3, ll 36-38*). Of course, Watanabe could use a single label to cover both holes 9, 9a and achieve the desired goal of storage at reduced atmospheric pressure. However, for printing Watanabe requires that reaction tank 7a vent to atmosphere. Were Watanabe to use a single label, only by partial removal or destruction (tearing) thereof could the structure of the present invention be achieved, i.e., a single label which covers a portion but not an entirety of at least one air diffusion vent during printing to allow venting to atmosphere. Of course, "... substantial reconstruction and redesign of the elements shown in [the primary reference] as well as a change in the basic principle under which the [primary reference] construction was designed to operate" cannot provide the basis for an obviousness rejection.²

Further, only by recourse to the teachings of the present Applicant is the desirability of the feature of a single label, placed in a predetermined position whereby a portion but not an entirety of at least one air diffusion vent is uncovered during printing, achievable by the structure taught by Watanabe. Therefore, it cannot be said that any teaching of Watanabe

² *In re Ratti*, 270 F.2d 810, 813, 123 USPQ 349, 352 (CCPA 1959).

renders the claims of the present application obvious, absent improper use of the Applicant's own teachings to supply the missing suggestion or motivation.

With respect to claim 8, the Examiner takes the position that Watanabe's communicating and/or air holes 9, 9a, which extend linearly from a top surface of a lid to a bottom surface of the lid, read on the term "serpentine" as used therein. The rejection seems to be based on an unsupported statement by the Examiner relating to the "linear form of a serpent." As noted above, the dependent claims of this application are believed to be in condition for allowance over Watanabe by their dependence from what are believed to be allowable independent claims, and therefore the rejection of claim 8 is rendered moot. However, to the extent that the rejection of claim 8 is grounded on the Examiner taking official notice that there is a recognized "linear form of a serpent" and that the skilled artisan in the present field would know that such a "linear serpent" exists, the Applicant respectfully requests, as is its right, that the Examiner either support this contention with appropriate evidence or by affidavit, or withdraw it.³

That is, the Applicant recites a "serpentine channel" (see *page 1, ll 16-19*: "Often times, the air diffusion vent embodies a circuitous or torturous path in the form of a serpentine channel..."). But, the Examiner recasts this term to state that "serpentine" means "of or resembling a serpent," and that this term allows of a "linear form of a serpent." The Applicants are unaware of the existence of "linear serpents." Therefore, to the extent that the Examiner's rationale in support of the rejection relies on the existence of such a "linear

³ With regard to this point, see the Manual of Patent Examining Procedure (MPEP) §2144.03 ("[T]he Board [or examiner] must point to some concrete evidence in the record in support of these findings' to satisfy the substantial evidence test. If the examiner is relying on personal knowledge to support the finding of what is known in the art, the examiner must provide an affidavit or declaration setting forth specific factual statements and explanation to support the finding"); 37 CFR §1.104(d)(2) ("[W]hen a rejection in an application is based on facts within the personal knowledge of an employee of the Office, the data shall be as specific as possible, and the reference must be supported, when called for by the applicant, by the affidavit of such employee ..."); see also *In re Zurko*, 258 F.3d 1379, 59 USPQ2d 1693 (Fed. Cir. 2001).

serpent,” support must be provided or the rejection withdrawn.

The Examiner next rejects claim 9 under 35 U.S.C. §103(a) as obvious in view of Watanabe. The Examiner states that Watanabe recites all the claimed limitations except the recited dimensions of claim 9. However, as noted above, it is believed that amended claim 7 is in condition for allowance over the teachings of Watanabe. By its indirect dependence from claim 7, dependent claim 9 is believed also to be in condition for allowance without regard to any consideration of obviousness under the teachings of *In re Fine*.⁴

Further, the Applicants have set forth a precise configuration with regard to the air diffusion vents and fill holes. Namely, the present air diffusion vents extend into a printhead lid 10 to a channel depth d and terminate at fill holes 18 passing through a thickness t of the printhead lid 10 (see Figures 1 and 6B). Together, these measurements relate to a numerical figure of about 168. In that Watanabe recites exclusively cylindrical holes 9, 9a passing vertically through a lid, with no recitation or suggestion of air diffusion vents extending therefrom, the structure set forth in the present application cannot fairly be said to be obvious. That is, without the features of air diffusion vents connected to ink fill holes by a channel having a depth d whose dimensions could be included in a calculation, Watanabe has no need to supply the Applicants configuration and the recited calculation and no motivation to do so, and the obviousness rejection must fall.

The Examiner next rejects claims 10-11 as obvious over the combination of Watanabe and Ujita et al. Again, respectfully the Applicant notes that claims 10-11 directly or indirectly depend from what is believed to be an allowable independent claim 7, and that therefore claims 10-11 should also be in condition for allowance. Detailed discussion of Ujita is believed to be unnecessary, because the independent claims stand or fall on the

⁴ *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) (“Dependent claims are non-obvious under 35 USC 103 if the claims from which they depend are non-obvious.”).

Examiner's characterization of Watanabe. In turn, the dependent claims can stand or fall on the teachings of the reference.

Nevertheless, the Applicant also points out that Ujita, like Watanabe, provides no teaching, suggestion, or motivation to provide a single label for an ink jet cartridge or tank which covers a portion but not an entirety of an air diffusion vent during printing. Rather, Ujita teaches (best seen in Figure 18A of Ujita, see also Figures 19A-19D, and the Specification at *Col. 14, paragraph 261 et seq.*) an ink cartridge 3 having a label (seal tape 1626) for sealing an ink outlet 391. Ujita's label 1626 is "... stripped off when the cartridge 3 is used" (*Col. 14, paragraph 261*). Like Watanabe, Ujita neither teaches nor motivates the skilled artisan to arrive at the claimed combination of the present invention, i.e., a single label which, during printing, is positioned over an entirety of at least one air diffusion vent but is positioned over a portion but not an entirety of another air diffusion vent. Withdrawal of the rejection is requested.

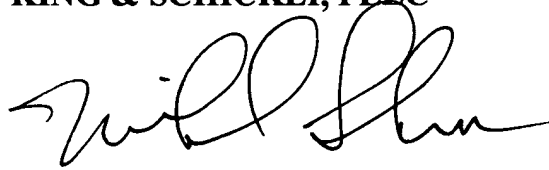
Lastly, in responding to the Applicant's earlier-filed arguments, the Examiner contends (see paragraph 8 of the Action) that the present claim term "during printing" does not result in any structural difference between the present invention and Watanabe. This is patently false. Watanabe's Figure 3 shows two labels (sealing members 21, 22) covering holes 9, 9 and 9A. This structural arrangement seals Watanabe's reaction tank 7a (*Col. 3, ll 26-28; Col. 4, ll 2-6*), to allow storage of a reaction solution under reduced pressure to prevent precipitation from the reaction solution (*Col. 3, ll 38-49*). For use or printing, label 21 must be removed to reveal an entirety of hole 9A (*Col. 3, ll 36-38*) to vent to atmosphere. Thus, the present Applicant accomplishes with one label that for which the invention of Watanabe requires two labels. One label is not the same as two labels, and a specific structural distinction is, indeed, therefore set forth. To say otherwise is simply disingenuous.

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For at least the foregoing reasons, the Applicant submits that all claims are in condition for allowance and respectfully requests issuance of a prompt Notice of Allowance. No fees are believed to be due beyond those authorized in the accompanying fee transmittal for new independent claim 28. *However, to the extent any additional fees may be due, the undersigned authorizes their deduction from Deposit Account No. 11-0978.*

Respectfully submitted,

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